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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,767	08/28/2003	Masaki Takai	241959US0	5868

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

KEYS, ROSALYND ANN

ART UNIT PAPER NUMBER

1621

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/649,767

Applicant(s)

TAKAI ET AL.

Examiner

Rosalynd Keys

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Status of Claims*

1. Claims 7-26 are pending.

Claims 7-26 are rejected.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 7-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims include the limitation "wherein the oxygen nucleophilic agent is not the same as the monodentate phosphite compound". However, this limitation is not supported in the original disclosure.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 7-10, 16, 18, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arend et al. (US 4,017,564).

Arend et al. teach preparing (meth)allyl phosphonic acid dialkyl esters comprising reacting allyl chloride or methallyl chloride with a phosphorus acid trialkyl ester of the formula  $P(OR')_3$  wherein  $R'$  is a straight-chain or branched, optionally halogen-substituted alkyl radical having up to 4 carbon atoms in the presence of a nickel catalyst (see entire disclosure, in particular column 1, line 66 to column 2, line 35).

Arend et al. differ from the instant claims in that Arend et al. do not teach that the phosphorus acid trialkyl ester may also be used as a catalyst in the reaction. However, the amounts utilized by Arend et al. are sufficient for its use as a catalyst. Thus, although it is not disclosed as being useful as a catalyst, its use as a catalyst is implied.

7. Claims 7-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz et al. (US 3,755,451) alone or in view of Bryant et al. (US 3,534,088).

Kurtz et al. clearly suggest exchange reactions between allylic compounds and active hydrogen containing compounds (XH compounds) in the presence of a catalyst such as platinum, palladium, ruthenium and the like along with modifiers which include phosphites (see entire disclosure, in particular column 4, line 13 to column 9, line 27). Thus, although the claimed phosphite compounds are not exemplified by Kurtz et al. they are clearly suggested and therefore their use would have been obvious to one having ordinary skill in the art at the time the invention was made.

Kurtz et al. further do not exemplify the use of an ammonium compound. However, Kurtz et al. teach that the catalyst of Bryant et al. is active for promoting the exchange reaction

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(see column 4, lines 47-51). Bryant et al. teaches that an ammonium compound is useful as a source carboxylate ion in their catalyst (see entire disclosure, in particular column 3, lined 39 to column 4, line 15). One having ordinary skill in the art at the time the invention was made would have found it obvious to include an ammonium compound in the catalyst of Kurtz et al., since Bryant et al. teach that the addition of a carboxylate ion to the catalyst is beneficial (see column 3, lines 39-47).

### ***Response to Amendment***

#### **Claim Rejections - 35 USC § 112**

8. The rejection of claims 2 and 3 under 35 U.S.C. 112, second paragraph is withdrawn, since these claims have been cancelled.

#### **Claim Rejections - 35 USC § 102**

9. The rejection of claims 1, 3, 4 and 6 under 35 U.S.C. 102(b) as being anticipated by Jung (US 3,775,469) is withdrawn since these claims have been cancelled. In addition new claims 7-26 are patentable over Jung because Jung does not teach or fairly suggest reacting an allyl compound having the claimed formula (a).

10. The rejection of claims 1 and 3-6 under 35 U.S.C. 102(e) as being anticipated by Chauvin et al. (US 6,525,228 B2) is withdrawn since these claims have been cancelled. In addition new claims 7-26 are patentable over Chauvin et al. because Chauvin et al. do not teach or fairly suggest reacting an allyl compound having the claimed formula (a).

11. The rejection of Claims 1 and 5 under 35 U.S.C. 103(a) as being unpatentable over by Chauvin et al. (US 6,525,228 B2) is withdrawn since these claims have been cancelled.

12. The rejection of claims 1 and 5 under 35 U.S.C. 103(a) as being unpatentable over by Jung (US 3,775,469) is withdrawn since these claims have been cancelled.

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13. The rejection of claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over Arend et al. (US 4,017,564) is withdrawn since these claims have been cancelled.

### ***Response to Arguments***

14. Applicant's arguments filed April 12, 2005 have been fully considered but they are not persuasive. The Applicants argue that Arend et al. use the phosphite as a substrate and not as a catalyst. This argument is not persuasive because as discussed in the previous office action the amount of phosphite utilized by Arend et al. is enough for the phosphite to be useful as a catalyst. Further, the claims do not exclude the phosphite from being both the catalyst and the substrate. The Applicants arguments concerning the newly added limitation "wherein the oxygen nucleophilic agent is not the same as the monodentate phosphite compound" is not persuasive because this limitation is not supported in the original disclosure and is therefore considered new matter. For the above reasons the Examiner believes that the instant claims, as applied above, are not patentable over Arend et al.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalyn Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M and F 3:00-8:00 pm and T-TR 5:30-10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Rosalyn Keys  
Primary Examiner  
Art Unit 1621

July 9, 2005